

### **ABSTRACT OF THE DISCLOSURE**

Methods, systems and recordable media for using expression data characterizing protein pathways of diseases to produce phase relationships between treatment responses of diseased tissues to treatments applied thereto and expression profiles of the diseased tissues as measured when untreated. Methods, systems and recordable media for augmenting an original or existing treatment or treatment combination with one or more treatments that cover gene activity of a disease not addressed by the original/existing treatment.